

REMARKS

Reconsideration of this application as amended is requested. By this amendment Applicants have amended the specification at page 7, line 14 to correct an obvious typographical/grammatical error. Claims 1-9 remain in the case.

The Examiner rejected claims 1-3 under 35 U.S.C. 103(a) as being unpatentable over Smith et al in view of Thong; and allowed claims 4-9.

Reconsideration of claims 1-3 over Smith et al in view of Thong is requested.

Applicants' claimed invention is an activity display for a communication system having multiple channels/time slots over a period of time to provide a high level all-in-one-glance troubleshooting tool. Frames of data, each frame having multiple channels, are processed over a given time period and patterns are searched for, such as all "ones", all "zeros" and "idle"; otherwise a "ones" density is determined. Channel and time periods are plotted as orthogonal axes, and color or shading is used to identify the recognized pattern or ones density for each time period/channel rectangular area. The result is a quasi-three-dimensional graphics display that provides channel-versus-time-versus-detected pattern as a high level all-in-one-glance troubleshooting tool.

The Examiner states that Smith et al disclose displaying the activity of electronic signals on a quasi-three-dimensional display where the electronic signals correspond to multiple data channels of a communication link -- Figs. 2-4 graphically depict a color spectrogram with a number of spectra aligned along a vertical time axis while the frequencies are shown on the horizontal frequency axis; that Smith et al disclose the spectrum analyzer visually comparing certain bands of frequencies to identify changes in the signal that are occurring over long periods of time -- the color spectrogram displays a number of spectra which are generated over time as a series of colored lines with the variations in the colored lines disclosing the density for the

data of color in relation to the time periods; that Smith et al do not disclose a shade within each rectangle defined by the time periods but that Thong teaches a graph in a histogram format with each bin of the histogram representing a frequency range and the height of a rectangle within the bin representing the number of sampling intervals in which the average frequency of the signal falls within the range – Fig. 4 discloses a scale indicating frequency range for each color; and that thus it would have been obvious for one of ordinary skill in the art to combine a shade within each rectangle defined by the time periods of Thong in the system of Smith et al because it would have enabled displaying characteristics of signals where minimum amplitude of the signal during an interval graphed versus time. The Examiner further states that Thong discloses each range as a grey scale or color value, and teaches a plurality of color values by the color of the box to indicate the frequency range for the color. Applicants respectfully traverse this improper and nonobvious combination suggested by the Examiner as not producing Applicants' claimed invention.

In contradistinction to Applicants' claimed invention Smith et al disclose a quasi-three-dimensional display for a spectrum analyzer having frequency and time as orthogonal axes with color denoting amplitude. There is no differentiating into channels of a communication system so the data channels recited by Applicants are not the same as the frequency scale (which is essentially continuous since the frequency range is divided into hundreds of bins – the number of bins is generally greater than the number of display pixels in a line). Therefore Smith et al do not define rectangles as recited by Applicants. For the sake of argument using shading or color to indicate a further characteristic of an orthogonal display, i.e., a quasi-third-dimension, is accepted as known. Thong uses an amplitude versus time orthogonal system with a frequency range denoted by color or shading. Neither reference teaches or suggests that the shading or color is indicative of "ones"

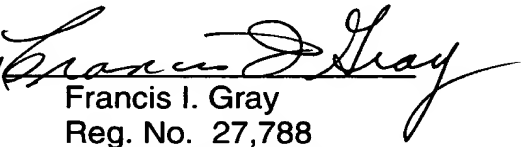
density, again since neither is concerned with displaying measurements regarding a communication system. Combining these references does not produce a display that provides a pattern/"ones" density indication for different channels of a communication system over periods of time. Thus claims 1-3 are deemed to be allowable as being nonobvious to one of ordinary skill in the art over Smith et al in view of Thong.

Applicants have reviewed the other prior art cited by the Examiner as being pertinent, and agrees with the Examiner that, whether taken singly or in combination with any other cited prior art, they are no more pertinent than the prior art applied and neither anticipate nor render obvious Applicants' claimed invention.

In view of the foregoing amendment and remarks allowance of claims 1-3 is urged, and such action and the issuance of this case together with already allowed claims 4-9 is requested.

Respectfully submitted,

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